What is claimed is:

1. A radiation detection device comprising a barium chloride ($BaCl_2$) crystal as a scintillator and a photomultiplier tube to receive the light from the scintillator wherein the wavelength of the light emitted from the scintillator is between 250 nm and 350 nm and the scintillator is located in a low humidity atmosphere.

2. The radiation detector as in claim 1 wherein the barium chloride crystal as a scintillator is cooled.

3. The radiation detection device as in claim 1 or 2 wherein the device is used to detect gamma rays.